IN THE DRAWINGS

Please replace Figs. 8A-10 and 11B-12 with new Figs. 8A-10 and 11B-12 as shown on the Replacement Sheets submitted herewith.

REMARKS

Claims 1-23 are pending in the present application. The specification, drawings and claims 1 and 21 have been amended. No new matter has been added. Claims 1, 6, 14 and 21-23 stand rejected under 35 U.S.C. § 101 as being directed towards non-statutory subject matter. Claims 1, 15 and 21 stand rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out that which the Applicants regard as the invention. Claims 1-23 stand rejected under 35 U.S.C. § 103 as being obvious over U.S. Patent No. 6,078,618 ("Yokoyama") in view of U.S. Patent No. 6,311,181 ("Lee"). For at least the following reasons, it is respectfully submitted that all of the pending claims are allowable.

The Examiner further indicates that the Oath or Declaration of inventor Deepa Joshi is defective. A new Declaration for inventor Deepa Joshi is submitted herewith.

In view of the above amendments to the specification, it is respectfully requested that the Examiner withdraw the objection to the specification.

In view of the Replacement Sheets submitted herewith, it is respectfully requested that the Examiner withdraw the objection to the drawings.

In view of the above amendments to claim 1 and 21, it is respectfully requested that the Examiner withdraw the rejection of claims 1, 6, 14 and 21-23 under 35 U.S.C. § 101.

Claims 1, 15 and 21 stand rejected under 35 U.S.C. § 112, second paragraph, because the Examiner does not understand terms (e.g., concept network, units included in the concept network, an element of a histogram vector corresponding to the

concept network) recited in these claims. It is respectfully submitted that, in view of the exemplary embodiments of the concept network (¶¶ [0043] - [0048]), units included in the concept networks (¶¶ [0041] - [0048]) and the element of the histogram vector (¶¶ [0066-77]) provided in the specification, one of skill in the art would understand the subject matter of claims 1, 15 and 21. *See also* MPEP 2111.01. Therefore, Applicants respectfully request that the rejection of claims 1, 15 and 21 under § 112 be withdrawn.

Claims 1-23 stand rejected under 35 U.S.C. § 103 as obvious over U.S. Patent No. 6,078,618 ("Yokoyama") in view of U.S. Patent No. 6,311,181 ("Lee").

Claim 1 recites a method for analyzing user search queries entered on a computer, the method comprising grouping a set of previous queries into a plurality of subsets along a dimension and for each of the subsets of the previous queries, generating a concept network, each concept network including a plurality of units and a plurality of relationships defined between the units, wherein each unit of each concept network has a frequency weight. The method further comprises selecting one of the units and constructing a histogram vector for the selected unit, the histogram vector having an element corresponding to each of the concept networks, wherein each element of the histogram vector has a value representative of the frequency weight of the selected unit in the corresponding one of the concept networks. The Examiner states that Yokoyama discloses all of the elements of claim 1 except for the step of grouping a set of previous queries into a plurality of subsets along a dimension, but Lee discloses this element.

Because the Examiner has generally cited four columns of Yokoyama (col. 5, l. 10 - col. 8, l. 60) as disclosing all of the elements of claim 1 (8/23/06 Office Action, p. 7), it is unclear which portion(s) of Yokoyama purportedly correspond to each

of the elements. For example, the Examiner has not pointed to any statement, figure, etc. in Yokoyama which purportedly corresponds to the claimed "set of previous queries," "subsets of previous queries," "concept network," etc. In any case, it is respectfully submitted that Yokoyama neither discloses nor suggests the elements recited in claim 1.

Initially, it is noted that Yokoyama discusses "a motion vector estimation system which is used for encoding a moving picture" (Yokoyama, col. 1, ll.4-6), and thus, in no way relates to a method for analyzing user search queries as presently claimed and should therefore be considered non-analogous art. The motion vector estimation system compares current picture data to reference picture data to determine, based on an estimated motion vector, whether the current picture data should be encoded. *Id.* at col. 3, ll. 8-26. Estimated motion vectors are computed for all search points in a search window (*Id.* at col. 5, ll. 17-27) on the reference picture data, and an average value of the estimated motion vectors or a histogram value of the motion vectors is used to set a shift vector. *Id.* at col. 6, ll. 21-43, Figs. 3-4. As shown in Fig. 2, the search window is moved using the shift vector to estimate motion vectors for a new set of search points on the current picture data. *Id.* at col. 5, ll. 19-28. Therefore, Yokoyama discusses searching through picture data which is not a method for analyzing user search queries as claimed.

Yokoyama neither discloses nor suggests grouping a set of previous queries into a plurality of subsets along a dimension. Even assuming that the search points in Yokoyama are "previous queries," there is no mention or suggestion that the search points are grouped into a plurality of subsets. In fact, an estimated motion vector is calculated for each individual search point. Yokoyama, col. 5, ll. 34-36. Thus, it is respectfully submitted that Yokoyama neither discloses nor suggests grouping a set of

previous queries into a plurality of subsets along a dimension, as recited in claim 1, but teaches away from this limitation by stating that the estimated motion vectors are calculated for each individual search point, rather than subsets of search points. Also, it is noted that the estimated motion vectors are in no way related to analyzing user search queries.

Furthermore, Yokoyama neither discloses nor suggests that for each of the subsets of the previous queries, generating a concept network, each concept network including a plurality of units and a plurality of relationships defined between the units, wherein each unit of each concept network has a frequency weight. Initially, it is noted that in the rejection of claim 1, the Examiner omitted any reference to a concept network. Thus, it appears the Examiner has correctly recognized that Yokoyama neither discloses nor suggests generating concept network, as recited in claim 1.

Additionally, Yokoyama never discloses that for each of the subsets of the previous queries, generating a concept network including a plurality of units and a plurality of relationships defined between the units, wherein each unit of each concept network has a frequency weight. Yokoyama discusses calculating a frequency for each search point in the search window and identifying a search point with a highest frequency for setting the shift vector thereto. Yokoyama, col. 6, ll. 31-43, Fig. 3. Again, the search points in Yokoyama correspond to portions of picture data within a search window. Thus, if the Examiner is equating the search points in Yokoyama with the units recited in claim 1, Yokoyama neither discloses nor suggests "a plurality of relationships defined between the units." That is, within a single search window, a motion vector is calculated for each of the search points to determine which search point has a highest frequency and

should be used to set the shift vector. *Id.* As each search point is analyzed independently of the other search points, Yokoyama neither discloses nor suggests "a plurality of relationships defined between the units," and, in fact, teaches away from such a limitation.

The Examiner correctly recognizes that Yokoyama neither discloses nor suggests "grouping a set of previous queries into a plurality of subsets along a dimension," as recited in claim 1. It is respectfully submitted that Lee does not cure this or any other deficiency of Yokoyama. That is, Lee is directed to a system for compressing histogram information from a large number of small-sized buckets using a discrete cosine transform ("DCT"). Thus, Lee, like Yokoyama, is in no way related to a method for analyzing user search queries as described in the present invention.

It is also respectfully submitted that there would be no motivation to combine the method of Yokoyama with the method of Lee. The Examiner asserts that such motivation exists, because "Lee's method could enable the method of Yokoyama to comprise a database management system, wherein the database management system discloses multidimensional selective estimations of compressed histogram information." 8/23/04 Office Action, pp. 7-8. As explained above, however, Yokoyama is directed to encoding schemes for moving pictures and has nothing to do with database management systems, and any assertion that such a relationship exists would be an improper hindsight construction of the present invention.

Applicants respectfully submit that neither Yokoyama nor Lee, either alone or in combination, discloses or suggests grouping a set of previous queries into a plurality of subsets along a dimension and for each of the subsets of the previous queries,

generating a concept network, each concept network including a plurality of units and a plurality of relationships defined between the units, wherein each unit of each concept network has a frequency weight. Yokoyama and Lee, either alone or in combination, also fail to each or suggest the elements of selecting one of the units and constructing a histogram vector for the selected unit, the histogram vector having an element corresponding to each of the concept networks, wherein each element of the histogram vector has a value representative of the frequency weight of the selected unit in the corresponding one of the concept networks, as recited in claim 1. Because claims 2-14 depend from, and, therefore include all of the elements of claim 1, it is respectfully submitted that these claims are also allowable for at least the same reasons as those presented in connection with claim 1.

Independent claims 15 and 21 comprise elements that are substantially similar to claim 1 and, as such, are allowable for at least the reasons described above with reference to claim 1. Because claims 16-20 and 22-23 depend from claims 15 and 21, respectively, it is respectfully submitted that these claims are also allowable.

The Commissioner is hereby authorized to charge any additional fees

which may be required or credit any overpayment to our Deposit Account No. **50-4026**.

Respectfully submitted,

Date: November 22, 2006

Timothy M. Salmon

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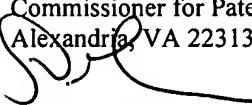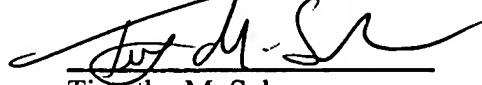
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